

# Heungsoo Kim

## List of Publications by Citations

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118  
papers

6,483  
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38  
h-index

79  
g-index

130  
ext. papers

6,963  
ext. citations

3.4  
avg, IF

5.4  
L-index

#	Paper	IF	Citations
118	Electrical, optical, and structural properties of indium tin oxide thin films for organic light-emitting devices. <i>Journal of Applied Physics</i> , <b>1999</b> , 86, 6451-6461	2.5	990
117	Transparent conducting aluminum-doped zinc oxide thin films for organic light-emitting devices. <i>Applied Physics Letters</i> , <b>2000</b> , 76, 259-261	3.4	394
116	Indium tin oxide thin films for organic light-emitting devices. <i>Applied Physics Letters</i> , <b>1999</b> , 74, 3444-3446	3.4	304
115	Molecular organic light-emitting diodes using highly conducting polymers as anodes. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 3844-3846	3.4	299
114	Effect of aluminum doping on zinc oxide thin films grown by pulsed laser deposition for organic light-emitting devices. <i>Thin Solid Films</i> , <b>2000</b> , 377-378, 798-802	2.2	277
113	Effect of film thickness on the properties of indium tin oxide thin films. <i>Journal of Applied Physics</i> , <b>2000</b> , 88, 6021-6025	2.5	260
112	Laser printing of pluripotent embryonal carcinoma cells. <i>Tissue Engineering</i> , <b>2004</b> , 10, 483-91		243
111	Indium tin oxide thin films grown on flexible plastic substrates by pulsed-laser deposition for organic light-emitting diodes. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 284-286	3.4	221
110	Doped ZnO thin films as anode materials for organic light-emitting diodes. <i>Thin Solid Films</i> , <b>2002</b> , 420-421, 539-543	2.2	192
109	Application of laser printing to mammalian cells. <i>Thin Solid Films</i> , <b>2004</b> , 453-454, 383-387	2.2	171
108	Transparent conducting F-doped SnO <sub>2</sub> thin films grown by pulsed laser deposition. <i>Thin Solid Films</i> , <b>2008</b> , 516, 5052-5056	2.2	169
107	Epitaxial growth of Al-doped ZnO thin films grown by pulsed laser deposition. <i>Thin Solid Films</i> , <b>2002</b> , 420-421, 107-111	2.2	160
106	Transparent conducting Sb-doped SnO <sub>2</sub> thin films grown by pulsed-laser deposition. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 218-220	3.4	140
105	Three-dimensional printing of interconnects by laser direct-write of silver nanopastes. <i>Advanced Materials</i> , <b>2010</b> , 22, 4462-6	24	118
104	Novel Laser-Based Deposition of Active Protein Thin Films. <i>Langmuir</i> , <b>2001</b> , 17, 3472-3479	4	118
103	Impact of reduced dimensionality on the magnetic and magnetocaloric response of La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2013</b> , 102, 062414	3.4	110
102	Transparent conducting Zr-doped In <sub>2</sub> O <sub>3</sub> thin films for organic light-emitting diodes. <i>Applied Physics Letters</i> , <b>2001</b> , 78, 1050-1052	3.4	108

101	Laser-sintered mesoporous TiO <sub>2</sub> electrodes for dye-sensitized solar cells. <i>Applied Physics A: Materials Science and Processing</i> , <b>2006</b> , 83, 73-76	2.6	86
100	Laser-printed thick-film electrodes for solid-state rechargeable Li-ion microbatteries. <i>Journal of Power Sources</i> , <b>2007</b> , 165, 413-419	8.9	81
99	Laser processing of nanocrystalline TiO <sub>2</sub> films for dye-sensitized solar cells. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 464-466	3.4	79
98	Picoliter-scale protein microarrays by laser direct write. <i>Biotechnology Progress</i> , <b>2002</b> , 18, 1126-9	2.8	75
97	Anode material based on Zr-doped ZnO thin films for organic light-emitting diodes. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 3809-3811	3.4	75
96	Optimization of Al-doped ZnO films for low loss plasmonic materials at telecommunication wavelengths. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 171103	3.4	70
95	Laser 3D micro-manufacturing. <i>Journal Physics D: Applied Physics</i> , <b>2016</b> , 49, 223001	3	68
94	Laser-printing and femtosecond-laser structuring of LiMn <sub>2</sub> O <sub>4</sub> composite cathodes for Li-ion microbatteries. <i>Journal of Power Sources</i> , <b>2014</b> , 255, 116-124	8.9	62
93	Effect of annealing on the electrical properties and morphology of a conducting polymer used as an anode in organic light-emitting devices. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2003</b> , 41, 2522-2528	2.6	59
92	Functionalization of indium tin oxide. <i>Langmuir</i> , <b>2006</b> , 22, 11113-25	4	56
91	Optimization of the semiconductor-metal transition in VO <sub>2</sub> epitaxial thin films as a function of oxygen growth pressure. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 081913	3.4	53
90	Optimization of laser printing of nanoparticle suspensions for microelectronic applications. <i>Applied Physics A: Materials Science and Processing</i> , <b>2012</b> , 106, 471-478	2.6	50
89	Transparent conducting films of ZnO:RuO <sub>2</sub> : Structure and properties. <i>Journal of Applied Physics</i> , <b>2000</b> , 88, 6564-6566	2.5	50
88	Highly oriented indium tin oxide films for high efficiency organic light-emitting diodes. <i>Journal of Applied Physics</i> , <b>2002</b> , 91, 5371-5376	2.5	49
87	Electrical and optical properties of indium tin oxide thin films grown by pulsed laser deposition. <i>Applied Physics A: Materials Science and Processing</i> , <b>1999</b> , 69, S447-S450	2.6	49
86	High-speed video study of laser-induced forward transfer of silver nano-suspensions. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 064910	2.5	46
85	New insight into enhanced superconductivity in metals near the metal-insulator transition. <i>Physical Review Letters</i> , <b>2001</b> , 87, 197004	7.4	46
84	Fabrication of terahertz metamaterials by laser printing. <i>Optics Letters</i> , <b>2010</b> , 35, 4039-41	3	42

83	Laser decal transfer of freestanding microcantilevers and microbridges. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 97, 513-519	2.6	40
82	Optimization of F-doped SnO <sub>2</sub> electrodes for organic photovoltaic devices. <i>Applied Physics A: Materials Science and Processing</i> , <b>2008</b> , 93, 521-526	2.6	40
81	Transparent conducting films of In <sub>2</sub> O <sub>3</sub> /ZrO <sub>2</sub> , SnO <sub>2</sub> /ZrO <sub>2</sub> and ZnO/ZrO <sub>2</sub> . <i>Thin Solid Films</i> , <b>2000</b> , 377-378, 750-754	2.2	39
80	Strain Effects in Epitaxial VO Thin Films on Columnar Buffer-Layer TiO/AlO Virtual Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 1577-1584	9.5	37
79	Fabrication of ZrO <sub>2</sub> codoped p-type ZnO thin films by pulsed laser deposition. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 203508	3.4	37
78	Laser forward transfer based on a spatial light modulator. <i>Applied Physics A: Materials Science and Processing</i> , <b>2011</b> , 102, 21-26	2.6	36
77	Laser forward transfer of silver electrodes for organic thin-film transistors. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 96, 441-445	2.6	35
76	Laser printing of multi-layered polymer/metal heterostructures for electronic and MEMS devices. <i>Applied Physics A: Materials Science and Processing</i> , <b>2010</b> , 99, 711-716	2.6	35
75	Active terahertz metamaterials based on the phase transition of VO <sub>2</sub> thin films. <i>Thin Solid Films</i> , <b>2015</b> , 596, 45-50	2.2	34
74	Rapid prototyping of micropower sources by laser direct-write. <i>Applied Physics A: Materials Science and Processing</i> , <b>2004</b> , 79, 783-786	2.6	33
73	Laser printing of nanocomposite solid-state electrolyte membranes for Li micro-batteries. <i>Applied Surface Science</i> , <b>2006</b> , 252, 8212-8216	6.7	31
72	Laser-induced forward transfer of silver nanopaste for microwave interconnects. <i>Applied Surface Science</i> , <b>2015</b> , 331, 254-261	6.7	30
71	Room temperature ferromagnetism in transparent Fe-doped In <sub>2</sub> O <sub>3</sub> films. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 032404	3.4	30
70	Laser-Printed and Processed LiCoO <sub>2</sub> Cathode Thick Films for Li-Ion Microbatteries. <i>Journal of Laser Micro Nanoengineering</i> , <b>2012</b> , 7, 320-325	1	30
69	Laser forward transfer using structured light. <i>Optics Express</i> , <b>2015</b> , 23, 422-30	3.3	28
68	Laser printing of conformal and multi-level 3D interconnects. <i>Applied Physics A: Materials Science and Processing</i> , <b>2013</b> , 113, 5-8	2.6	28
67	Laser Transferable Polymer-Ionic Liquid Separator/Electrolytes for Solid-State Rechargeable Lithium-Ion Microbatteries. <i>Electrochemical and Solid-State Letters</i> , <b>2006</b> , 9, A69-A71		28
66	VO-based switchable radiator for spacecraft thermal control. <i>Scientific Reports</i> , <b>2019</b> , 9, 11329	4.9	26

65	Laser-printed interdigitated Ag electrodes for organic thin film transistors. <i>Journal Physics D: Applied Physics</i> , <b>2010</b> , 43, 085101	3	26
64	Experimental demonstration of superconducting critical temperature increase in electromagnetic metamaterials. <i>Scientific Reports</i> , <b>2014</b> , 4, 7321	4.9	25
63	Laser-induced forward transfer (LIFT) of congruent voxels. <i>Applied Surface Science</i> , <b>2016</b> , 374, 42-48	6.7	21
62	Laser Forward Transfer of Functional Materials for Digital Fabrication of Microelectronics. <i>Journal of Imaging Science and Technology</i> , <b>2013</b> , 57, 1-8	1.2	21
61	Optical and electrical properties of transparent conducting In <sub>2</sub> O <sub>3</sub> /ZrO <sub>2</sub> films. <i>Journal of Materials Research</i> , <b>2000</b> , 15, 21-24	2.5	20
60	Enhanced superconductivity in aluminum-based hyperbolic metamaterials. <i>Scientific Reports</i> , <b>2016</b> , 6, 34140	4.9	19
59	Generation of transparent conductive electrodes by laser consolidation of LIFT printed ITO nanoparticle layers. <i>Applied Physics A: Materials Science and Processing</i> , <b>2013</b> , 111, 799-805	2.6	18
58	Laser decal transfer of electronic materials with thin film characteristics <b>2008</b> ,		18
57	Anisotropic in-plane strain in W-doped (Ba, Sr)TiO <sub>3</sub> thin films deposited by pulsed-laser deposition on (001)MgO. <i>Applied Physics A: Materials Science and Processing</i> , <b>2003</b> , 76, 841-846	2.6	17
56	Spatially modulated laser pulses for printing electronics. <i>Applied Optics</i> , <b>2015</b> , 54, F70-7	0.2	16
55	F-doped SnO <sub>2</sub> thin films grown on flexible substrates at low temperatures by pulsed laser deposition. <i>Thin Solid Films</i> , <b>2011</b> , 520, 497-500	2.2	16
54	Laser direct write of planar alkaline microbatteries. <i>Applied Physics A: Materials Science and Processing</i> , <b>2004</b> , 79, 417-420	2.6	15
53	Growth of epitaxial doped strontium sulfide thin films by pulsed laser deposition. <i>Thin Solid Films</i> , <b>2000</b> , 377-378, 803-808	2.2	15
52	Broadband terahertz generation using the semiconductor-metal transition in VO <sub>2</sub> . <i>AIP Advances</i> , <b>2016</b> , 6, 015113	1.5	15
51	Laser-processing of VO <sub>2</sub> thin films synthesized by polymer-assisted-deposition. <i>Applied Surface Science</i> , <b>2017</b> , 397, 152-158	6.7	13
50	Pulsed laser deposition of Zr <sup>2+</sup> codoped p-type ZnO thin films. <i>Applied Physics A: Materials Science and Processing</i> , <b>2008</b> , 93, 593-598	2.6	13
49	Laser direct-write of embedded electronic components and circuits <b>2005</b> ,		13
48	Strain effect in epitaxial VO <sub>2</sub> thin films grown on sapphire substrates using SnO <sub>2</sub> buffer layers. <i>AIP Advances</i> , <b>2017</b> , 7, 105116	1.5	12

47	Enhanced superconductivity in metallic oxides near the metal-insulator transition. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	12
46	Laser materials processing for micropower source applications: a review. <i>Journal of Photonics for Energy</i> , <b>2014</b> , 4, 040992	1.2	11
45	Synthesis of bulk In <sub>2</sub> O <sub>3</sub> /SnO <sub>2</sub> and their transparent conducting oxide films. <i>Journal of Applied Physics</i> , <b>2002</b> , 92, 227-229	2.5	10
44	Thermally Induced Magnetic Anisotropy in Nickel Films on Surface Acoustic Wave Devices. <i>IEEE Transactions on Magnetics</i> , <b>2019</b> , 55, 1-4	2	10
43	Ultrafast Phase Transition Dynamics in Strained Vanadium Dioxide Films. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700810	4.6	9
42	Laser Forward Transfer of Electronic and Power Generating Materials <b>2007</b> , 339-373		9
41	Synthesis of In <sub>2</sub> O <sub>3</sub> /SnO <sub>2</sub> transparent conducting oxide films. <i>Applied Surface Science</i> , <b>2003</b> , 208-209, 611-614	6.7	9
40	Laser-induced Forward Transfer of Ag Nanopaste. <i>Journal of Visualized Experiments</i> , <b>2016</b> , e53728	1.6	8
39	Enhancement of carrier-mediated ferromagnetism in Zr/Fe-codoped In <sub>2</sub> O <sub>3</sub> films. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 142403	3.4	8
38	Assembly and integration of thin bare die using laser direct-write <b>2007</b> ,		8
37	Hierarchical laser patterning of indium tin oxide thin films. <i>Optical Materials Express</i> , <b>2019</b> , 9, 3035	2.6	8
36	Control of metal-insulator transition temperature in VO <sub>2</sub> thin films grown on RuO <sub>2</sub> /TiO <sub>2</sub> templates by strain modification. <i>AIP Advances</i> , <b>2019</b> , 9, 015302	1.5	7
35	Polycrystalline VO <sub>2</sub> thin films via femtosecond laser processing of amorphous VO <sub>x</sub> . <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	7
34	Laser transfer of reconfigurable patterns with a spatial light modulator <b>2013</b> ,		7
33	Application of laser direct-write techniques for embedding electronic and micropower components <b>2004</b> ,		7
32	Coulomb interaction in disordered metals and HTSC. <i>Physica C: Superconductivity and Its Applications</i> , <b>2001</b> , 364-365, 471-474	1.3	7
31	ZnO Nanoparticle/Graphene Hybrid Photodetectors via Laser Fragmentation in Liquid. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	7
30	Laser embedding electronics on 3D printed objects <b>2014</b> ,		5

29	Applications of laser direct-write for embedding microelectronics <b>2007</b> ,		5
28	Epitaxial growth of Zn <sub>2</sub> Y ferrite films by pulsed laser deposition. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1999</b> , 17, 3111-3114	2.9	5
27	Tunable permittivity of La-doped BaSnO <sub>3</sub> thin films for near- and mid-infrared plasmonics. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 365103	3	4
26	Laser forward transfer of solder paste for microelectronics fabrication <b>2015</b> ,		4
25	Laser additive manufacturing of embedded electronics <b>2017</b> , 319-350		3
24	Thermal expansion studies of indiumiron oxide. <i>Physica Status Solidi (B): Basic Research</i> , <b>2011</b> , 248, 928-930		3
23	Transparent Conducting Oxide Films <b>2006</b> , 239-260		3
22	Cell-by-cell construction of living tissue <b>2002</b> ,		3
21	Laser printing and femtosecond laser structuring of electrode materials for the manufacturing of 3D lithium-ion micro-batteries <b>2016</b> ,		2
20	Laser-printed/structured thick-film electrodes for Li-ion microbatteries <b>2014</b> ,		2
19	Laser processing of 2D and 3D metamaterial structures <b>2013</b> ,		2
18	Realization of metamaterial structures by non-lithographic processes <b>2012</b> ,		2
17	Dye-sensitized solar cells using laser processing techniques <b>2004</b> ,		2
16	Observation of the out-of-plane magnetization in a mesoscopic ferromagnetic structure superjacent to a superconductor. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 162601	3.4	2
15	Laser processing of VO <sub>2</sub> thin films for THz devices and metamaterials <b>2017</b> ,		1
14	Superconducting properties of tin-based ENZ and hyperbolic metamaterials. <i>Physica C: Superconductivity and Its Applications</i> , <b>2019</b> , 565, 1353511	1.3	1
13	All-optical short pulse translation through cross-phase modulation in a VO <sub>2</sub> thin film. <i>Optics Letters</i> , <b>2016</b> , 41, 238-41	3	1
12	Fs-laser microstructuring of laser-printed LiMn <sub>2</sub> O <sub>4</sub> electrodes for manufacturing of 3D microbatteries <b>2014</b> ,		1

11	Polymer Electrodes for Flexible Organic Light-Emitting Devices. <i>Materials Research Society Symposia Proceedings</i> , <b>2004</b> , 814, 108		1
10	Manufacture of mesoscale energy storage systems by laser-direct write <b>2004</b> ,		1
9	Transparent conducting indium tin oxide thin film grown on flexible substrate by pulsed-laser deposition for organic light-emitting devices <b>2001</b> ,		1
8	Presence of a pseudo-gap feature in the density of states of disordered W/Si alloys. <i>Physica C: Superconductivity and Its Applications</i> , <b>2001</b> , 364-365, 427-429	1.3	1
7	Highly oriented indium tin oxide thin films for organic light-emitting diodes <b>2002</b> ,		1
6	Effect of film thickness on the properties of indium tin oxide thin film grown by pulsed-laser deposition for organic light-emitting diodes <b>2000</b> , 3933, 140		1
5	Light tunable plasmonic metasurfaces. <i>Optics Express</i> , <b>2020</b> , 28, 22891-22898	3.3	1
4	Laser Transfer of Entire Structures and Functional Devices <b>2018</b> , 427-443		
3	Congruent LIFT with High-Viscosity Nanopastes <b>2018</b> , 227-250		
2	High Quality Sn-Doped In <sub>2</sub> O <sub>3</sub> Films Grown by Pulsed Laser Deposition for Organic Light-Emitting Diodes. <i>Materials Research Society Symposia Proceedings</i> , <b>2003</b> , 780, 161		
1	Laser Processing of Energy Storage Materials <b>2021</b> , 59-73		